

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 - 31. (cancelled)

32. (new) A fully emptiable tube provided with a wall resistant to stress-cracking and forming a water barrier, said tube comprising a flexible skirt and a head, the flexible skirt being elongate in an axial direction and having, at one end of the tube, a filling end sealed by crushing the flexible skirt along a transverse direction and the head comprising at least one evacuation orifice and a flexible neck forming a radial extension of the at least one evacuation orifice and connecting with the flexible skirt, at least the flexible skirt and flexible neck forming a single-piece assembly, a wall at the joining of the flexible neck with the flexible skirt in a longitudinal plane containing the axial direction and perpendicular to the transverse direction having a determined joining radius, and the flexible skirt in a plane transverse to the axial direction and at mid-distance between an end of the flexible neck forming the at least one evacuation orifice and the filling end of the tube having a determined perimeter and a substantially constant wall thickness, the ratio of the determined perimeter to the joining radius being at least equal to 4.5, wherein the wall in the transverse plane has a median thickness of between 0.30 mm and 1.20 mm, wherein the tube consists of a mixture of a number "n" where n is at least equal to 1 of the polymers belonging to a family of copolymers-olefins prepared from C₂ to C₁₀ monomers, wherein at least a first polymer of the mixture belongs to the polypropylene family, and

wherein the constituent mixture of the tube wall has a flexural modulus of no more than 700 MPa according to standard NF EN ISO 178.

33. (new) The tube according to claim 32, wherein the median thickness is between 0.30 mm and 1.0 mm.

34. (new) The tube according to claim 32, wherein the flexural modulus is no more than 500 MPa according to said standard.

35. (new) The tube as in claim 32, wherein the first polymer is a heterophase copolymer of propylene and ethylene.

36. (new) The tube as in claim 32, wherein the tube contains a second polymer consisting of a heterophase copolymer of propylene and ethylene.

37. (new) The tube as in claim 32, wherein said tube contains a second polymer consisting of a linear C₄-C₁₀ copolymer of ethylene-olefin.

38. (new) The tube as in claim 32, wherein the constituent mixture of the tube wall has a flexural modulus of between 100 and 350 MPa according to said standard NF EN ISO 178.

39. (new) The tube as in claim 32, wherein the constituent mixture of the tube wall has a flexural modulus of between 150 and 300 MPa according said standard NF EN ISO 178.

40. (new) The tube as in claim 32, wherein the length, defined as the distance between the end of the neck and the filling end along an axis is between 40 mm and 170 mm, and wherein the wall

in the transverse plane has a median thickness preferably equal to the square root of the length corrected by a multiplier coefficient of between 0.045 and 0.065.

41. (new) The tube as in claim 40, wherein the multiplier coefficient is between 0.050 and 0.060.

42. (new) The tube as in claim 32, wherein the ratio of the determined perimeter to the joining radius is less than 3.

43. (new) The tube as in claim 42, wherein the ratio of the determined perimeter to the joining radius is between 0.5 and 2.0.

44. (new) The tube as in claim 32, wherein the neck, with respect to the axial direction), has a maximum incline of no more than 35°.

45. (new) The tube as in claim 44, wherein the maximum incline is no more than 30°.

46. (new) The tube as in claim 32, wherein the skirt, before sealing the filling end, is defined by a generatrix non-parallel to the axial direction.

47. (new) The tube as in claim 46, wherein the generatrix of the skirt, before sealing the filling end, has a maximum incline of no more than 2° with respect to the axial direction.

48. (new) The tube as in claim 47, wherein the maximum incline is about 0.5°.

49. (new) The tube as in claim 47, wherein before sealing the end of the skirt, the generatrix of the skirt is a straight line.

50. (new) The tube as in claim 32, wherein the skirt, as far as its joining with the neck, has a wall thickness having a first value that is substantially constant and substantially identical to the median thickness, wherein the neck in the vicinity of its end forming the at least one evacuation orifice has a wall thickness having a second value greater than the first value, and wherein the wall thickness of the neck decreases gradually from the second value to the first value from end to a point of the neck located at a determined distance from the joint between the neck and the skirt.

51. (new) The tube as in claim 50, wherein the ratio of the second wall thickness value to the first wall thickness value is no more than 1.5.

52. (new) The tube as in claim 32, wherein the tube is coated with a barrier varnish over its entire surface including the neck.

53. (new) The tube as in claim 32 wherein the tube is obtained by injecting into an injection mould comprising a core and an impression, the core itself comprising a central part of which one free end center bears upon the impression at least during the tube skirt injection phase.

54. (new) The tube as in claim 53, wherein the free end of the central part of the core comprises supply channels, and wherein

the tube has an apex wall at its injection end formed at least in part of sectors corresponding to the supply channels.

55. (new) The tube as in claim 53, wherein the central part of the core of the injection mould is mobile, and wherein the apex wall of the injection end of the tube is formed without any gaps, after drawing backwardly the mobile central part over a distance corresponding to the desired thickness for said apex wall.

56. (new) The tube as in claim 53, wherein the free end of the central part of the core is in the shape of a sunken cone, and further comprising an angle (γ) formed by a bearing surface of the free end on the impression with the plane perpendicular to the longitudinal axis of the tube being less than 45° .

57. (new) The tube as in claim 56, wherein the angle (γ) is between 15° and 20° .

58. (new) The tube as in claim 53, wherein the free end of the central part of the core is in the shape of a projecting cone frustum, and further comprising an angle (β) formed by a bearing surface of the projecting cone frustum of the free end on the impression with the plane perpendicular to the longitudinal axis of the tube lying between 35° and 45° .

59. (new) The tube as in claim 58, wherein the free end of the central part of the core is in the shape of a sunken cone in its part internal to the projecting cone frustum, the angle (δ) formed by the bearing surface of the sunken cone of the free end

on the impression with the plane perpendicular to the longitudinal axis of the tube being less than 45° .

60. (new) The tube according to claim 59, wherein the angle (δ) is between 15° and 20° .

61. (new) The tube as in claim 53, wherein the head comprises single-piece securing means of a nozzle type and a single-piece reducer, the nozzle and the reducer being positioned in a continuation of an orifice along the longitudinal axis, an apex wall of the nozzle forming the reducer, the orifice of the reducer being obtained by cutting after forming the tube by injection, and the tube, nozzle and reducer thereby forming a single-piece assembly formed by injection in a single operation.

62. (new) The tube as in claim 61, wherein the tube is provided with capping means provided with a tip of conical shape, wherein the tip enters into the orifice of the single-piece reducer, wherein the tip places the wall of the reducer under centrifugal radial tension in a vicinity of an opening orifice.

63. (new) The tube as in claim 53, wherein the head comprises single-piece securing means of a nozzle type positioned in a continuation of the at least one orifice along the longitudinal axis, and the tube and the securing means forming a single-piece assembly formed by injection in a single operation.

64. (new) The tube as in claim 61, wherein the wall of the single-piece nozzle carries an asymmetric thread.

65. (new) The tube as in claim 63, wherein the wall of the single-piece nozzle carries an asymmetric thread.

66. (new) The tube as in claim 32, wherein the tube is provided with an added accessory of dispensing type of added reducer or added nozzle tip type, or securing means of added nozzle type forming a reducer or nozzle tip type, or capping means of service cap type, the added accessory being positioned in a continuation of the orifice along the longitudinal axis.

67. (new) The tube as in claim 66, wherein the added accessory is provided with a chimney of which an outer face is conjugated with a face parallel to the longitudinal axis of the orifice, after inserting the chimney inside the orifice.

68. (new) The tube as in claim 67, wherein the chimney of the added accessory places the wall of the orifice under centrifugal radial tension.

69. (new) The tube as in claim 67, wherein the added accessory is non-removable and in that the chimney of the added accessory is provided with a penetration device of conical shape, and an outer face of the chimney being radially recessed with respect to the penetration device.

70. (new) The tube as in claim 32, wherein the determined perimeter of the skirt in the transverse plane lies between 75 mm and 190 mm.

71. (new) The tube as in claim 32, wherein the neck, in the longitudinal plane, has a radius of curvature that increases continuously in a direction leading from the at least one evacuation orifice towards the skirt.

72. (new) A method for fabricating a flexible, fully emptiable tube consisting of a skirt and a head comprising at least one evacuation orifice and a neck forming a radial extension of the orifice and being joined to the skirt, the skirt and the neck forming a single-piece assembly resistant to stress-cracking and forming a water barrier, comprising the steps of:

using as constituent material of a wall of the tube a mixture of a number "n" where n is at least equal to 1 of polymers belonging to the family of copolymers-olefins prepared from C₂ to C₁₀ monomers, a first polymer belonging to the polypropylene family, the mixture of polymers having a flexural modulus of no more than 700 MPa, and the wall having a thickness of between 0.30 and 1.20 mm; and

fabricating the skirt and head of the tube by injecting the mixture, in a single injection operation, into an injection mould comprising an impression and a core, said core comprising a central part of which one free upper end center bears upon the impression at least during the skirt injection phase.

73. (new) The method according to claim 72, wherein the using step comprises using a mixture of polymers having a flexural module no more than 500 MPa and the wall has a thickness of between 0.30 and 1.0mm.